

FITC Anti-CD146 antibody [P1H12] ab78451

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Overview

Product name	FITC Anti-CD146 antibody [P1H12]
Description	FITC Mouse monoclonal [P1H12] to CD146
Host species	Mouse
Conjugation	FITC. Ex: 493nm, Em: 528nm
Specificity	<p>ab78451 reacts specifically with CD146. In blood and marrow ab78451 reacts only with endothelial cells, and has been used to detect circulating endothelial cells in human, dogs, rabbits and mouse samples. ab78451 positively stains normal, primary HUVEC and MVEC cultures and the endothelial cells of all vessels in normal frozen sections of human skin, intestine, ovary tonsil, lymph node, lung, and kidney. It does not stain carcinoma cell lines HT-29 and COLO205, and M21, the T cell lines Jurkat and HuT78, fibroblasts, HL-60 or CHO cells, EBV-transformed B cell lines, normal monocytes, granulocytes, red cells, platelets, T cells or B cells from marrow or peripheral blood; nor does it detect marrow megakaryocytes or the megakaryoblast line HU3. The peripheral blood cells that do stain with ab78451 are also positive for both von Willebrand Factor (vWF) and thrombomodulin (the combined expression of which is limited to endothelium), and they stain for fit and flk. In recent testing, melanoma A2058, SKMEL.3 and A375.S2 are positive, while murine melanoma M3 is negative. One smooth muscle line (HISM) was positive and one negative (TIGHA-VSMC). Human blood lymphocytes are negative with or without prior stimulation. We have data to indicate that this antibody may not cross react with Rat. However, this has not been conclusively tested and expression levels may vary in certain cell lines/tissues.</p>
Tested applications	Suitable for: Flow Cyt
Species reactivity	Reacts with: Human
Immunogen	Tissue, cells or virus corresponding to Human CD146. Cultured human umbilical cells.
Positive control	Human, mouse or dog blood or marrow cells Human intestinal smooth muscle cells Melanoma A2058, SKMEL.3 or A375.S2 cells Normal, primary HUVEC or MVEC cultures Human skin, intestine, ovary tonsil, lymph node, lung or kidney tissue.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	pH: 7.60 Preservative: 0.1% Sodium azide Constituents: 1.5% BSA, 1.45% Sodium chloride, 0.0536% PBS
Purity	Immunogen affinity purified
Clonality	Monoclonal
Clone number	P1H12
Isotype	IgG1

Applications

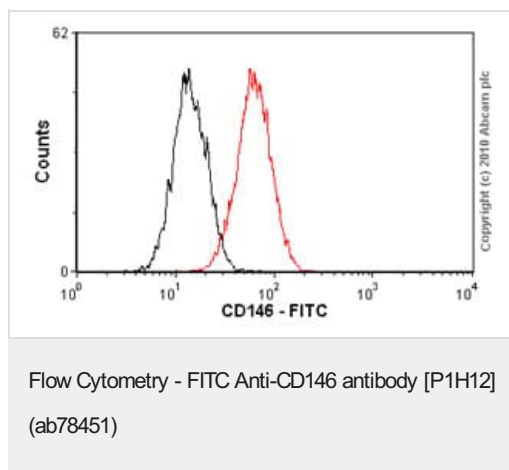
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab78451 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		Use 2µg for 10 ⁶ cells. Methanol fixed cells. ab91356 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

Function	Plays a role in cell adhesion, and in cohesion of the endothelial monolayer at intercellular junctions in vascular tissue. Its expression may allow melanoma cells to interact with cellular elements of the vascular system, thereby enhancing hematogeneous tumor spread. Could be an adhesion molecule active in neural crest cells during embryonic development. Acts as surface receptor that triggers tyrosine phosphorylation of FYN and PTK2, and a transient increase in the intracellular calcium concentration.
Tissue specificity	Detected in endothelial cells in vascular tissue throughout the body. May appear at the surface of neural crest cells during their embryonic migration. Appears to be limited to vascular smooth muscle in normal adult tissues. Associated with tumor progression and the development of metastasis in human malignant melanoma. Expressed most strongly on metastatic lesions and advanced primary tumors and is only rarely detected in benign melanocytic nevi and thin primary melanomas with a low probability of metastasis.
Sequence similarities	Contains 3 Ig-like C2-type (immunoglobulin-like) domains. Contains 2 Ig-like V-type (immunoglobulin-like) domains.
Cellular localization	Membrane.

Images



Overlay histogram showing MCF-7 cells stained with ab78451 (red line). The cells were fixed with methanol (5 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab78451, 2µg/1x10⁶ cells) for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 FITC used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a significantly decreased signal in MCF-7 cells fixed with 4% paraformaldehyde (10 min) used under the same conditions.

Please note that Abcam does not have data for use of this antibody on non-fixed cells. We welcome any customer feedback.

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